OUTLOOK Economic Data and Commentary

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Assessing Inflation Risk

The nation's economy appears to be slowly emerging from the worst economic downturn in decades. Driven by government stimulus, GDP grew at 2.2 percent in the third quarter of 2009, and experts expect continued growth when fourth-quarter numbers are reported.

The government's stimulus program has comprised both fiscal and monetary policy. With the backing of U.S. President Barack Obama, Congress passed a $787 billion spending bill in early 2009 to offset a huge decline in private sector economic activity, while the Federal Reserve has been holding interest rates at extraordinarily low levels for the last several quarters.

Despite the rebound, a number of economists have begun to voice fears that escalating deficits and the Fed's stimulative policies could usher in a new era of high inflation. For instance, noted economist Allan Meltzer recently told OUTLOOK that "rampant inflation" is a real risk absent fundamental changes at the fiscal and monetary levels.

Economist Todd Buchholz is more sanguine. Buchholz is a former White House Director of Economic Policy, a managing director of the $15 billion Tiger hedge fund, and a professor of economics at Harvard University. OUTLOOK sat down with Buchholz to talk about the economic recovery and his thoughts on inflation risk.

OUTLOOK: What signs are you seeing of recovery?

TB: I was one of the few economists who believed the recession would be short-lived. Compared to where we were in November, December and January of last year, it is staggering to see positive third-quarter growth.

I think we are beginning to see a rebound, and it is showing up in different areas. Retail numbers have been stronger than expected. If you look at housing, the Case-Shiller Index – which Case and Shiller themselves thought would be declining for years to come – actually has stabilized and seems to be pointing upwards. The job market obviously is terrible for many Americans, but the job market is usually the last thing that turns around in a recovery, because companies are reluctant to hire back until they have confidence that the economy is on firmer footing.

So the economy is still weak and there are many parts of the economy that are enfeebled, but that is different from saying we are at the risk of another Great Depression or that this is a recession that we are not going to be able to climb out of.

OUTLOOK: Some pundits assert that the worst financial crisis in history is not behind us, but rather ahead of us, and that we are on course for hyper-inflation. What's your take?

TB: With any economic phenomenon there are risks. I certainly can see the scenario where inflation starts growing, but then you have to ask yourself if that is the most logical case. I disagree with those who say that inflation is baked in the cake. The argument for inflation is that the Federal Reserve Board and Ben Bernanke pumped up the money supply, printed too much money and that leads to inflation. And it is true, as Milton Friedman taught, that inflation is caused by the creation of excess money.

That's what the doomsday inflationists worry about, but what I think they don't realize is that this was merely offsetting the destruction of credit, the destruction of money, the de-leveraging that was taking place in the private sector. Sure the printing press of money was on overdrive, but across the street from the money being created was a bonfire of financial institutions, over-leveraged businesses and consumers who were virtually destroying money. So I do not believe the Fed's operations were inflationary.

Now that begs the question, what happens if they keep going, at some point could it be inflationary? I say, to a degree, yes. If the Fed overstays its welcome, if we continue to have zero percent interest rates over the next couple of years and double digit money supply growth, then I can see the inflation scenario.

OUTLOOK: In your view, what's the likelihood of such an inflationary scenario?

TB: Let's look back to the 1970s – an era of stagflation, which meant a terrible recession simultaneous with inflation. It was also the era of the wage-price spiral, something we are not experiencing this time around. In fact, when you look at unit labor costs and productivity, we have had a surge in productivity far beyond what people expected. In the third quarter, productivity rose 9.5 percent, and at the same time, unit labor costs dropped 5.2 percent. So you have businesses really wringing out the fat, laying off and then forcing those remaining workers to work harder, and that helps to contain inflationary forces.

Part of the reason we're seeing those trends in the labor market is because we do not have the kind of union situation that we had in the 1970s. In the

About this article

Todd G. Buchholz is a well-known American economist and author of bestselling books *New Ideas From Dead Economists* and *New Ideas From Dead CEOS*. He is a former senior economic advisor at the White House.

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1970s we averaged a union labor strike virtually every third day and it had a major impact on labor costs. For instance, at one point the United Mine Workers negotiated a new wage agreement and the wage increase was 10 percent per year for three years in a row. We are not seeing that kind of thing happening today. It is true that we occasionally have labor strikes now, which is legal and so on, but it is nothing like it was in the 1970s. After Ronald Reagan fired the striking air traffic controllers, unions started losing muscle.

Finally, going back to the money supply issues, it is arguable that money supply growth has been too strong for about a year. But if you look at the 1970s, we had roughly six or seven years of excess money supply growth. So for those reasons I am less agitated about inflation.

OUTLOOK: Many look at the cost of goods as a harbinger of inflation. Which is a better measure – the Producer Price Index or the Consumer Price Index?

TB: In the end the CPI is more important because that tells you whether businesses are able to pass on higher prices to consumers. So if businesses are charging more among themselves but ultimately the guy selling to consumers cannot raise his prices, then what you have is a profit squeeze or an inability to make profits among producers. Basically the inflation rate over the last couple of months is no different than its average over, say, 2006 to 2009. Again, I am not ruling out that we could have an inflation problem in late 2010 to 2011, but there is no guarantee of it, it is not baked in the cake. Also because of globalization, because of China's participation, I think it is more difficult to generate inflation.

OUTLOOK: How does China and globalization factor into the equation with regard to inflationary pressure?

TB: China owns almost $1 trillion in U.S. Treasury bonds. Not because they want to be nice to us, not because they want to earn a 3 percent return on their money – they are doing it out of self interest, because they want to keep the value of their currency low and because they have a large trade surplus. They have all this excess cash, and they dump their own currency on the market to buy dollars, so U.S. Treasuries are among their largest assets.

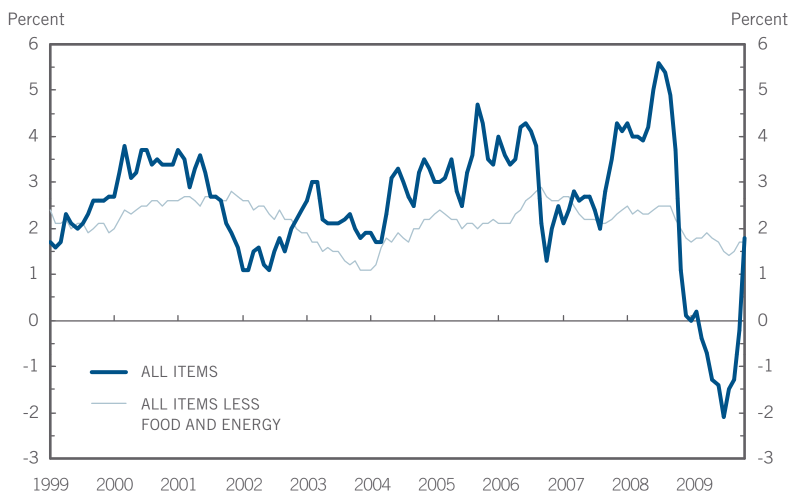
If China decides to dump U.S. Treasuries, they are really punishing themselves because the value of their assets decline. Premier Wen Jiabao urged President Obama to "honor commitments and guarantee the security of China's assets." I argue that China is playing a vigilant role in protecting the American taxpayer. The White House and the Congress do not seem to care about the deficit and the debt. It actually is China that is vocally begging the White House to be careful about what we do with the U.S. deficit and the debt, to show a sense of responsibility. Now in terms of the dollar, the dollar is under pressure, and I think the Treasury secretary and the Federal Reserve Board need to be a little bit more vigilant and more credible when they say that they like a strong dollar.

OUTLOOK: If there is a run on the dollar, would that create a rush on hard assets like gold? Do you foresee a rush to liquidity in the current climate?

TB: You cannot beat something with nothing. So around the world, you look around and say, are you excited about the Japanese yen? Are you excited about the euro? No? So then get yourself hard assets, and I suppose part of what we are seeing in the rush to gold right now is the fear that the dollar is losing its role as a store of value. I do think that a dollar crisis would lead to a further run in the price of gold.

If there is a run on the dollar, by definition that means other countries' central banks are not buying our treasuries, which means our interest rates go up, which means it becomes harder for people to buy cars here in this country and makes it harder to borrow to buy a house, so that certainly is a negative for the U.S. economy.

12 MONTH CPI CHANGES, 1999 TO PRESENT



Source: Bureau of Labor Statistics

If the U.S. dollar or U.S. bonds collapse, everybody loses. American consumers will get squeezed by higher prices and China loses as well, since their investments in the U.S. would go poof. My point is that it also is a negative to the Chinese economy and I do not see why they would want to work to orchestrate that.

OUTLOOK: Do you have any thoughts about the recent calls from some experts to move away from the dollar as the dominant international currency?

TB: As a matter of history, central banks probably have more dollars than they should, and that is because up until 1999, when the euro was created, the other currency reserves were rather small. We had the Japanese yen and the British pound, and then we had the German mark, the French franc and the Italian lira, none of which were really seen as large enough economies to play the role of the dollar. Now that we have a euro, there is a legitimate view that central banks need to start diversifying their portfolios. So it is not necessarily a critical event, but perhaps more of

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a continual gravitational pull that makes it difficult for the dollar to become strong. I do not think it necessarily means that the dollar has spasmed, it just means that caretakers of the dollar need to be more careful, and I am not sure we are seeing enough of that.

OUTLOOK: Can you compare the current U.S. and European experience with what happened in the Japanese economy during the 1990s?

TB: Many people worry that, while our economy is getting better, maybe we are heading for a fall into a 20-year cycle similar to the Japanese – a recession that basically flat-lines. I think there are a couple of things wrong with that scenario. First of all, the Japanese population is shrinking, and that makes it difficult to generate positive economic growth. Secondly and most important, the Japanese system permitted so-called "zombie banks." The Japanese did not let banks fail; instead they propped them up. These zombie banks did not recognize their losses, did not go out of business, did not really consolidate in a meaningful way, for at least a decade.

There are two things wrong with that. First, it means keeping incompetent people going. Secondly, it means that those that do their job well cannot earn profits, because there is just too much competition. Compare that to the U.S., where numerous financial institutions failed. While that is not a good thing, it means that those that survive actually have the opportunity to earn some profit. And now, in a case like Goldman Sachs, you see profit becoming an embarrassment. Goldman Sachs cannot figure out what to do with their billions of dollars in profit that in other eras they would have paid as bonuses to their employees. In the 1990s Japan did not let that happen.

But Japan did make some mistakes that the U.S. could very well make. For instance, Japan raised taxes significantly in the middle of a recession. We've heard some calls in Congress on the need for a tax increase to pay for the stimulus and other spending packages, but it doesn't appear to be gaining much traction with the administration or legislative leaders at this time. Also, Japan was too slow in loosening monetary policies. I think Bernanke had the benefit of knowing a lot about the Great Depression and a lot about the 20-year Japanese recession. And so I think it's less likely that we face the same 20-year drought.

OUTLOOK: How should businesses approach investing and managing for the future?

TB: For one thing, people should recognize that there are great values right now. The reason we are coming out of the recession is because everything is on sale. Consumers and businesses are coming out of their bomb shelters, and they are looking around and realizing that, if over the next five years I am going to need to buy a car, a vacation, a thresher or just about anything, now is a good time to buy. And that is how we get out of recession – prices fall, inflation sort of goes in reverse and people realize they have more buying power. So the first thing to recognize is that now is a fantastic time to buy the things that you need for your business. I do not care if we are talking about the world's biggest tractor or a photocopier, now is the time and business ought to be taking advantage of the tremendous buying opportunities and the great financing deals that are available at this point.

OUTLOOK: Historically agriculture and mining are sectors that tend to do well in high inflationary periods. What is your outlook for these sectors?

TB: In terms of durable returns these sectors are going to have to be leveraged to real demand and real growth. Yes, they can be safe havens in terms of inflation, sure. But it is very difficult to build your business on the basis of a safe haven model. Therefore there will be investment flows, but because those flows could exit just as easily as they came in, it is "hot" money. So the real question in my mind is whether the world economy is going to generate the kind of growth that will benefit commodity producers. And the answer to that question is yes.

However, I am a little concerned about bubbles returning in commodities. Currently oil is about $75 per barrel. That is half of its peak, but considering global growth being rather modest, considering what seems to be a lot of supply of fossil fuels on the market and what has happened to natural gas, there is no guarantee that the price of oil needs to go significantly higher for the world economy to rebound. So my point is that the world economy is rebounding, economic growth in China and India is authentic, as it is in most of the rest of the world now, and it ought to be of particular benefit to those commodity producers, but that does not mean we are going to return to the bubble pricing of commodities that we saw in 2008. I think those highs were either irrational exuberance or a fear that pension funds and others were missing the next great investment. So I think we can have positive and impressive returns, but I do not think that were going to go back to bubble year profits and pricing.

Food Defense: Protecting the Global Food Supply Chain

Eating habits in the U.S. have changed dramatically in recent decades. It wasn't that long ago that the availability of food products varied widely by region and season. The consumer's choice of fresh meat, poultry, fish, fruits and vegetables was limited to products that could be quickly transported without spoiling. International products were rare and expensive.

Today, thanks to revolutions in transportation and cold storage, the food supply chain is global and consumers have an abundance of fresh produce and vegetable choices whenever they go to the supermarket. Shoppers strolling past the butcher's counter today are treated to fresh meat and seafood from around the globe.

But behind the efficiency and effectiveness of the global food distribution system lies a hidden threat. One safety lapse in a developing country has the potential to sicken thousands of people. A security breach in one company's supply chain could allow a disgruntled employee – or even a terrorist – to contaminate the food supply and cause tremendous human and economic damage.

Recent, highly publicized incidents involving the adulteration of baby formula and pet food in China with the inexpensive protein-substitute melamine have highlighted some of these safety issues. And it's not limited to overseas markets. A recent salmonella contamination of peanut butter processed in the United States resulted in the recall of 4,000 products and hundreds of hospitalizations nationwide.

OUTLOOK recently spoke with Dr. Frank Busta about the overall safety of the nation's food supply. He is the director emeritus and senior science advisor for the National Center for Food Protection and Defense based at the University of Minnesota. He also served on the U.S. Food and Drug Administration's Food Advisory Committee and was chief technology advisor to the United Nations Development Programme's agri-processing project in China.

OUTLOOK: What trends have you seen emerge in recent years in the area of food safety?

FB: I started in the food safety business in 1958. I think, in general, food safety has improved, but we also have more situations and organisms to be concerned about and an increasing number of challenges to overcome as the global food system continues to expand and evolve.

About this article

Dr. Frank Busta is director emeritus and senior science advisor for the National Center for Food Protection and Defense and professor emeritus of food microbiology at the University of Minnesota. He serves on the FDA Food Advisory Committee.

TERMS AND DEFINITIONS

Food security – Refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation.

Food safety – Refers to the handling, preparation and storage of food in ways that prevent food-borne illness.

Biosecurity – Refers to measures designed to reduce the risk of intentional introduction of infections agents into the food system, transmission of infectious diseases and other threats.

When I got out of college, we didn't have every fruit and vegetable available year-round at the supermarket. We didn't have products from all over the world all the time. We did not have as many fresh products. We didn't have as many people eating in restaurants. Now, half our food dollars are spent on food prepared outside the home. All of a sudden we've got organisms showing up that weren't here before. We're starting to recognize more outbreaks of food-borne illness.

Our education level has had to follow these changes – both as consumers and for the food safety industry. It's pretty clear that we have learned a lot, too, because we are identifying a lot more food-borne illnesses that weren't caught before.

OUTLOOK: How do you ensure food safety when food products and ingredients are often produced and packaged in foreign countries with different standards for quality?

FB: This is as challenging on a global basis as it is here in the United States. When you're talking globally, you have to consider the origin of any product as the start of concern for food defense. Take economically motivated adulteration, which is a situation where you are not informing the buyer you're substituting a certain ingredient. That's what happened in China with the chemical melamine, which was used as a protein substitute in pet food and baby formula.

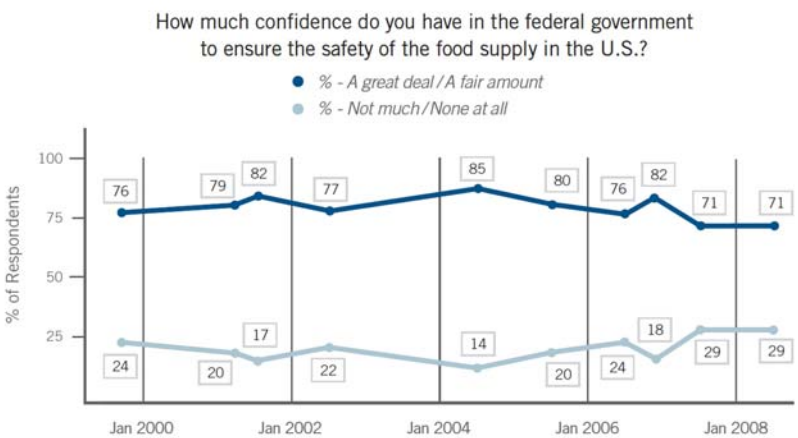
There must be verification mechanisms in the supply chain. If you're buying ingredients needed to produce a food product, it is essential that you know who you're buying from and where it's coming from. Good organizations will know the origins of all foods and ingredients. They will verify that the supply chain partners they're dealing with are legitimate and reliable. They should spot-check it on occasion and also test the product in a lab. That doesn't always work though, because a lot of times you see problems when things are purchased through brokers or other third-parties.

OUTLOOK: What is the threat of food contamination as a terrorist act?

FB: A notebook was recovered in a cave in Afghanistan that had a whole series of food situations, including toxic agents to use in food. The hard targets have tightened up – such as national monuments and airports. But there may be a movement to more soft targets like food. I feel it is a significant opportunity for terrorists to do great damage to our nation.

But terrorists are not necessarily only internationally-based terrorists. They may also include American citizens. Look at the Oklahoma City bombing. They may be criminals trying to get money out of an organization or company or disgruntled employees who are upset and want to do some kind of damage to the organization.

FOOD SAFETY CONFIDENCE



Source: Gallup

OUTLOOK: How common are incidents involving food-borne contamination?

FB: China has had a series of incidents recently. In 2002, 41 people died and 400 became ill when a vendor put rat poison in a competitor's breakfast food. In Oregon in 1984, there was a salmonella outbreak generated by a cult in which certain members of the cult tampered with a number of salad bars to influence a local election. Something like 750 people got ill.

In another situation, a woman upset with her lab coworkers laced some sweet rolls with a type of bacteria similar to E. coli and salmonella. Thirteen people were sickened, and she went to prison. In 2002 in Michigan, a worker contaminated some beef with a pesticide and made 111 people ill. In 2003, a parishioner contaminated coffee and snacks with arsenic at a church function in Maine. Sixteen people fell ill and one died.

The number of incidents is relatively small, yet when we assess our food industry and the capabilities to do harm, the threat is real. We want a system that distributes wonderful, reasonably-priced food nationally. But in doing that, we have produced a system that can do the same thing with contaminated food.

OUTLOOK: How disruptive could a threat or actual event of intentional food contamination be?

FB: These are rare events, but when they occur, they're often catastrophic. If someone were to contaminate a small farm-stand cheese operation, maybe they could get a few hundred people ill. But if larger operations are targeted, a food contamination event could affect 50,000 to 100,000 people. Some corporations are working very hard to make sure their industry or company doesn't become the vector.

The most recent salmonella spinach situation probably cost that industry $100 million. That was only one lot, one day's production. The recent case of salmonella-tainted peanut butter contaminated more than 4,000 different product lines. That had a tremendous economic impact because of the number of recalls. If that had been a lethal chemical that killed a number of people, you can imagine the consumption of anything with peanuts would be down for a very long time.

If a contamination results in deaths, the numbers can get quite staggering very quickly. If you say a person is worth $4 million, which is one arbitrary

Dr. Frank Busta is director emeritus and senior science advisor for the National Center for Food Protection and Defense

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value used in legal formulas, and you had 1,000 deaths, that becomes $4 billion. That gives you an indication of what kind of economic impact a food tainting situation could have – not to mention the cost of people at the hospital or people permanently damaged or the impact to food industries.

We hope a major event will never happen – it hasn't yet. All our efforts are aimed at tightening up so we no longer look like a soft target.

OUTLOOK: Which industries are most at risk?

FB: Cereal products, grains, produce, meat, dairy and major suppliers of food ingredients, along with prepared foods of any type, whether it's ready-to-eat breakfast cereals or refrigerated products.

You look at the dairy industry, for instance. Who drinks milk and who eats ice cream? Children. They have a product that turns over very rapidly. It is produced, goes to the store and is purchased and consumed in a very short cycle. If something gets contaminated, it gets to a lot of people in short order. Produce is very similar. There have been a lot of food safety issues showing up in produce because it is a product that is not very processed and turns over rapidly.

Meat and ground beef, meanwhile, have had some problems with E. coli. They've worked very hard to control the threat by tightening up their food defense as well.

OUTLOOK: What measures can be taken by industry to make our food supply safer?

FB: Controlling access to a food facility is critical. Everyone who comes into the facility must be screened and go through a background check. In some cases, companies need to make sure visitors are always accompanied. If it is a very quiet location, it is important to have at least two employees working there so that one individual cannot do something nefarious without being detected.

Food production facilities must be controlled so that truck drivers do not have access to operations areas. Tanker trucks or semi-tractor trailers must have recorded seals on them so counterfeit materials or infectious agents cannot be introduced during transport.

A number of those types of security issues actually benefit the organization economically as well, because they lessen the amount of lost or stolen inventory. Quality has also benefited from this kind of close scrutiny of materials and actions along the entire supply chain.

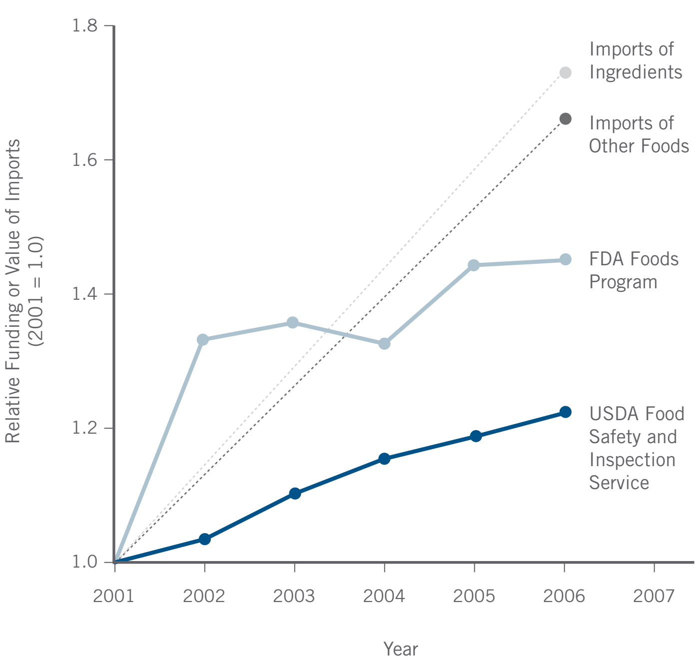
OUTLOOK: Is improved food labeling and tracking part of the solution?

FB: In general, food producers are doing a better job with traceability, offering more information on labels so they can conduct recalls and alert consumers if something is contaminated. That way, if something does require a recall, they will be able to do it effectively and economically.

OUTLOOK: How much does it cost a producer or processor to invest in food safety mitigation?

FB: The general rule of thumb is a penny on the dollar. In other words, it adds 1 percent to the final cost of the product. I know the margins in the food industry are terribly small. Consequently, anything that adds to the cost has to be passed on to the consumer. A lot of purchases are made on price – not on safety. The food industry has not used safety as a competitive advantage, because it has reasoned that by doing that, it would imply that food is not safe.

FOOD IMPORTS AND SAFEGUARDS



Source: U.S. Department of Agriculture

OUTLOOK: Are we as a nation prepared for a food-borne attack?

FB: We're getting better prepared. Though it wasn't a food-borne attack, the H1N1 pandemic was useful because it prepared the nation's medical community to respond to a fast-spreading health problem. It's not a bad practice run for a more tragic pandemic or catastrophic attack on the food system. Every safety issue helps us prepare better for food defense. We have projects on decontamination should something occur. We need to respond, using traceability, to get the product out of the market. When or if this occurs, and we hope it's if, we have got to be ready to respond and then to recover quickly.

OUTLOOK: Is the government currently doing enough? Are there additional steps that need to be taken from a regulatory or policy perspective?

FB: Historically, both the FDA and USDA have shied away from putting regulations in place. Also, the Department of Homeland Security really doesn't have the mechanism or the understanding of food safety issues.

What's worked well is when the government works with the industry to get them to make voluntary changes. Companies are motivated by the bottom line and returning profits to investors. There is one sure way of not doing that – losing the brand in some way. If something happens to the brand, they can be very badly scarred or wiped out. That is the kind of motivation that's been used to spur investment in a number of prevention efforts. The government has been very quiet about doing this. They don't want to make a big deal about the changes they have suggested or introduced, because it indicates vulnerability. A lot of this has been very low key. But the industry has made a significant number of changes – like controlling access to trucks, facilities and more. They're far from perfect, but it's improved.

My concern is that some things might go by the wayside. I haven't seen it slip on the manufacturing and processing facilities, because they've stayed pretty tight. There's a real pressure on that all the time. Considering all of this, there is an obvious need for continued vigilance, continued research and continued awareness of potential threats.

Interest Rates and Economic Indicators

The interest rate and economic data on this page were updated as of 12/31/09. They are intended to provide rate or cost indications only and are for notional amounts in excess of $5 million except for forward fixed rates.

KEY ECONOMIC INDICATORS

Gross Domestic Product (GDP) measures the change in total output of the U.S. economy. The Consumer Price Index (CPI) is a measure of consumer inflation. The federal funds rate is the rate charged by banks to one another on overnight funds. The target federal funds rate is set by the Federal Reserve as one of the tools of monetary policy. The interest rate on the 10-year U.S. Treasury Note is considered a reflection of the market's view of longer-term macroeconomic performance; the 2-year projection provides a view of more near-term economic performance.

ECONOMIC AND INTEREST RATE PROJECTIONS

Source: Insight Economics, LLC & Blue Chip Economic Indicators

				US Treasury Securities	
2009	**GDP**	**CPI**	**Fed Funds**	**2-year**	**10-year**
Q3	2.80%	3.60%	0.16%	1.00%	3.50%
Q4	2.80%	2.70%	0.12%	0.90%	3.50%
2010	**GDP**	**CPI**	**Funds**	**2-year**	**10-year**
Q1	2.80%	1.80%	0.14%	1.00%	3.70%
Q2	2.80%	1.60%	0.18%	1.10%	3.90%
Q3	2.90%	1.90%	0.20%	1.10%	3.80%
Q4	3.10%	2.00%	0.18%	1.00%	3.70%

PROJECTIONS OF FUTURE INTEREST RATES

The table below reflects current market expectations about interest rates at given points in the future. Implied forward rates are the most commonly used measure of the outlook for interest rates. The forward rates listed are derived from the current interest rate curve using a mathematical formula to project future interest rate levels.

IMPLIED FORWARD RATES

Years Forward	3-month LIBOR	1-year Swap	3-year Swap	5-year Swap	7-year Swap	10-year Swap
Today	0.25%	0.98%	2.11%	3.01%	3.55%	4.00%
0.25	0.57%	1.28%	2.38%	3.23%	3.72%	4.13%
0.50	1.23%	1.59%	2.67%	3.45%	3.89%	4.26%
0.75	1.76%	1.78%	2.94%	3.65%	4.04%	4.39%
1.00	1.57%	1.89%	3.16%	3.82%	4.17%	4.49%
1.50	1.98%	2.59%	3.65%	4.17%	4.44%	4.70%
2.00	2.88%	3.41%	4.13%	4.50%	4.69%	4.90%
2.50	3.53%	3.86%	4.43%	4.71%	4.86%	5.03%
3.00	3.83%	4.23%	4.67%	4.88%	4.99%	5.13%
4.00	4.43%	4.76%	5.00%	5.10%	5.20%	5.28%
5.00	4.78%	5.06%	5.17%	5.23%	5.32%	5.37%

HEDGING THE COST OF FUTURE LOANS

A forward fixed rate is a fixed loan rate on a specified balance that can be drawn on or before a predetermined future date. The table below lists the additional cost incurred today to fix a loan at a future date.

FORWARD FIXED RATES

Cost of Forward Funds

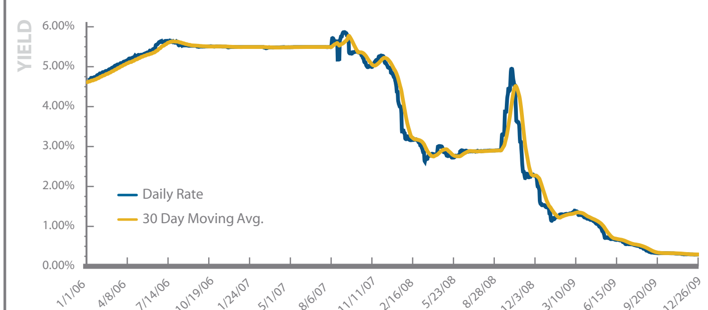
Forward Period (Days)	Average Life of Loan			
	2-yr	3-yr	5-yr	10-yr
30	13	12	11	7
90	36	33	30	18
180	67	62	58	33
365	124	106	108	60

Costs are stated in basis points per year.

SHORT-TERM INTEREST RATES

This graph depicts the recent history of the cost to fund floating rate loans. Three-month LIBOR is the most commonly used index for short-term financing.

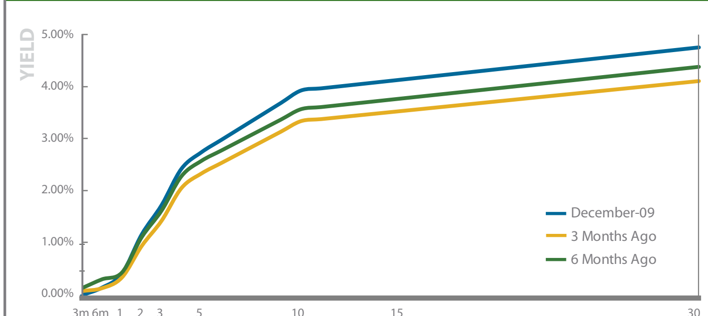
3-MONTH LIBOR



RELATION OF INTEREST RATE TO MATURITY

The yield curve is the relation between the cost of borrowing and the time to maturity of debt for a given borrower in a given currency. Typically, interest rates on long-term securities are higher than rates on short-term securities. Long-term securities generally require a risk premium for inflation uncertainty, for liquidity, and for potential default risk.

TREASURY YIELD CURVE



CoBank 2009 Conference Call and Webcast

Please join CoBank on **Tuesday, February 23, 2010, at 3 p.m. Eastern Time** for our year-end conference call and webcast. The 30-minute call will feature a presentation of 2009 financial highlights and Q&A with banking excutives.

Joining via phone:

- Dial-in number: 866-272-9941
- Passcode: 60538547

Joining via the Internet:

- To register, visit www.cobank.com and click on the "2009 Earnings Webcast" link at the top of the page.

How to ask questions:

- Instructions will be provided on how to submit questions during the webcast. In addition, you can submit questions in advance by emailing them to corp.comm@cobank.com.

If you have additional questions, please contact CoBank Corporate Communications at 800-542-8072 x 45862.

About CoBank

CoBank is a $60 billion cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture and the nation's rural economy. In addition to serving its direct borrowers, the bank also provides wholesale loans and other financial services to affiliated Farm Credit associations and other partners across the country.

Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore. For more information about CoBank, visit the bank's web site at www.cobank.com.